

REMARKS/ARGUMENTS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 1-12 are now present in this application. Claims 1, 2 and 7 are independent. Claims 1-7 and 9 have been amended. Claims 10-12 have been added. Reconsideration of this application, as amended, is respectfully requested.

Drawings

Applicant appreciates the Examiner's indication that the drawings filed on January 28, 2002 are accepted.

First Rejection Under 35 U.S.C. § 112, First Paragraph

Claim 1 stands rejected under 35 U.S.C. § 112, first paragraph. This rejection is respectfully traversed.

The Examiner asserts that claim 1 fails to disclose an optical element to which a voltage is applied to control the optical element to have different optical functions with respect to the level of voltage being applied wherein the different optical functions are responsible to transmit the image. In order to overcome the Examiner's rejection, Applicant has amended independent claim 1 to recite an optical element as required by the Examiner.

Further, the Examiner asserts that claim 1 fails to describe selective functions corresponding to the left eye and right eye picture. In response to the Examiner's rejection, Applicant has amended claim 1 to describe the selective functions corresponding to the left eye and right eye picture. Reconsideration and withdrawal of this rejection are thus respectfully requested.

Second Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 2-9 stand rejected under 35 U.S.C. § 112, first paragraph. This rejection is respectfully traversed.

The Examiner asserts that the claims must show the correspondence between the color coding of the images and the color coding of the color barrier in order for the right eye image to go to the right eye only and the left eye image to go to the left eye only, as in the stereoscopic mode and the correspondence between the complementary color filters and the left eye picture and right eye picture in the plane mode. The Examiner further asserts that it is necessary for the color barrier to have a different arrangement or function when in stereoscopic mode or in plane mode, yet the Applicant fails to state such a difference.

In response to the Examiner's rejection, Applicant has amended claims as necessary to address the issues identified by the Examiner. Reconsideration and withdrawal of this rejection are thus respectfully requested.

Third Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 7-9 stand rejected under 35 U.S.C. § 112, first paragraph. This rejection is respectfully traversed.

The Examiner states that the specification and the claims fail to teach how the stereoscopic image can be observed by having a color barrier in the light scattering device. Further, the Examiner asserts that claim 7 fails to disclose an operable device since the image displaying apparatus as described therein is not capable of providing a stereoscopic image display.

In response to this rejection, Applicant has amended claim 7 to teach how the arrangement of a color barrier unit having first and second color filters for selectively transmitting a left eye picture and a right eye picture to the left eye and right eye of an observer is operable with the light scattering device for either scattering the image light or transmitting the image light as it is to achieve the different mode.

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Rejections Under 35 U.S.C. § 103

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,315,377 to Isono et al. ("Isono"). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, Applicant respectfully submits that independent claim 1 has been amended to recite a combination of steps in a method of displaying a multi-mode stereoscopic image, including aligning a display unit having first pixels for a left-eye picture and second pixels for a right-eye picture, and a variable color barrier unit having first and second variable filters alternated with each other such that the first variable filters are of a first color and a color of the second variable filters is a complement of said first color, wherein each of said first and second variable filters are overlapped with a portion of said first pixels and a portion of said second pixels.

Applicant respectfully submits that this combination of steps as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including Isono.

A color complement is a term of art, and well known in the art as such. In other words, it is well known that complementary colors are any two colors that when combined produce white light. For example, the color complement of red is cyan, and when these are combined, white light is produced.

Isono teaches a liquid crystal display panel 46 which the Examiner equates with the Applicant's claimed display unit and also teaches a display 28 on which

a parallax barrier is generated (which the Examiner equates with the Applicant's claimed variable color barrier). However, Isono does not disclose the Applicant's claimed arrangement (overlap of a portion) of first and second pixels in the display panel 46 or an alternating pattern of first filters and second filters having complementary colors. Further, Isono fails to teach how first and second pixels of the display unit and first and second filters having a complementary color arrangement operate together.

Therefore Isono fails to teach or suggest the combination of steps set forth above in independent claim 1, as amended. Reconsideration and withdrawal of this art grounds of rejection are thus respectfully requested.

Claims 2-9

Claims 2-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,751,479 to Hamagishi et al. ("Hamagishi"). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

While not conceding to the appropriateness of the Examiner's rejection, the Applicant respectfully submits that independent claim 2 has been amended to recite a combination of elements in a multi-mode stereoscopic image displaying apparatus including, a variable color barrier unit having first and second variable filters alternated with each other such that said first variable

filters are of a first color and a color of the second variable filters is a complement of said first color, wherein each of said first and second variable filters are overlapped with a portion of said first pixels and a portion of said second pixels.

Independent claim 7 has been similarly amended to recite a combination of elements in a multi-mode stereoscopic image displaying apparatus, including a color barrier having first color filters alternated with each other such that said first color filters are of a first color and a color of said second color filters is a complement of said first color, wherein each of said first and second color filters are overlapped with a portion of first pixels and a portion of second pixels such that the left-eye picture is incident to the left eye and the right-eye picture is incident to the right eye of an observer.

Applicant respectfully submits that these combinations of elements as set forth in independent claims 2 and 7 are not disclosed or made obvious by the prior art of record, including Hamagishi.

It is known in the art that the complement of green is magenta, the complement of blue is yellow and the complement of red is cyan. A color barrier or color barrier unit as claimed in the Applicant's invention may be comprised of either of the above-mentioned pairs (a color and its complement).

Hamagishi discloses a color filter 3, which the Examiner equates with the Applicant's claimed color filter. The alternating colors of the color filter 3 are red, green and blue (primary colors). These colors are not complements of one another

according the definition of a color complement as well known in the art. The complements of the above-mentioned primary colors are not included in the color filter 3 of Hamagichi. Further, Hamagichi fails to teach or suggest the claimed arrangement or overlap of variable filters and pixels. Therefore, Hamagichi fails to teach or suggest the combinations of elements as recited above in independent claims 2 and 7 (as amended).

Claims 3-6 and 8-9 depend either directly or indirectly on independent claims 2 and 7. Since Hamagishi fails to teach or suggest the above-recited features of independent claims 2 and 7, Hamagishi cannot render claims 2-9 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art ground of rejection are respectfully requested.

Claims 10-11

Claims 10-11 have been added for the Examiner's consideration. Applicants submit that claims 10-11 depend, either directly or indirectly on independent claims 1, 2 and 7, and therefore are allowable based their dependence from claims 1, 2 and 7, which are believed to be allowable. Consideration and allowance of claims 10-11 are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests

that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), the Applicant respectfully petitions for a one (1) month extension of time for filing a response in connection with the present application and the required fee of \$110.00 is being filed concurrently herewith.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Percy L. Square, Reg. No. 51,084, at (703) 205-8034, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fee required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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